

Obituary: The Rev. Father Dr. V. S. Manickam S. J. (1944–2012)



Dr. A. BENNIAMIN

Botanical Survey of India, Itanagar

CHRIS FRASER-JENKINS

Kathmandu and Royal Botanic Garden, Edinburgh

With the passing away of Rev. Father Dr. Visuvasam Sousai Manickam, Pteridology in India has lost one of its great stalwarts. Father Manickam died on the 30th March 2012 at St. Mary's Higher Secondary School, Madurai, bringing to an end a life of 68 years spent in spiritual quest and in the pursuit of Pteridology.

Born on 1st June 1944, in the small village of Kamalapuram, Dindigul District of Tamil Nadu, as one of several children, the second son of Visuvasam Paripooranam. After his local school studies he joined the Society of Jesus at Beschi College, Dindigul, in 1961 and studied religion for two years. He then went to Chennai to pursue his college studies and was ordained as a priest at Loyola College, Madras (as Chennai then was) in 1964–1967. He chose an undergraduate course in Botany at Loyola College, which he passed with a high mark and then went on to do a postgraduate course in Botany at St. Joseph's College, Tiruchirappalli (Trichy), earning a first class degree through his dedication and attention to detail.

Following this and his awakening interest in Botanical studies, he was awarded a Ph.D. in Botany in 1975 at the University of Kerala, Thiruvananthapuram (Trivandrum), which he joined in 1971. He studied there under the guidance of Professor C. A. Ninan, in the school of the late Professor A. Abraham, to learn fern cytology. It was under Prof. Ninan's stimulating supervision that he developed his ground-breaking research studying the cytology of South Indian ferns and carried out extensive detailed fieldwork on the Pteridophytes of the Western Ghats from 1969 onwards. He was able to explore the entire Palni Hill range, surveying and collecting some 2500

pteridophytes, and simultaneously pursued his profound religious development and studies. These pteridophyte collections were the basis for the taxonomic part of his Ph.D. work, which he completed at Kerala University from 1971–74. He also studied in detail the ecology of ferns of the Palni Hills, under the guidance of the French Institute, Pondicherry. This included correlating the distribution of ferns in the various phytogeographic zones of the Palni Hills to the micro- and macro-climate. During this work he investigated the cytology of about 35 species of ferns. The results were published in three books, Manickam & Ninan's *Enumeration of ferns of the Palni Hills* (1976) and *Ecological Studies on the Fern Flora of the Palni Hills (S. India)* (1984) and Manickam's *Fern Flora of the Palni Hills (South India)* (1986), as well as a further research-paper on cytology (Manickam, 1984). In these works Father Manickam made every effort to communicate with other botanical authorities internationally and to revise and update the taxonomy and nomenclature to a superior level. It was also a great advantage that unlike his predecessors he documented and numbered his collections conscientiously, providing the numbers and details in his publication, something that no other cytotaxonomists in India were doing at that time. As a result, it has still been possible 35 years later for one of us (CRFJ) to find and photographically record all his cytological voucher-specimens in various herbaria and apply a much changed, more critical modern taxonomy to them, long after he had produced his important cytological results. This has not been possible for the pteridological studies of any other workers from Trivandrum, even recently, who neither kept actual voucher-specimens, nor cited numbers in their publications, and the same applies to many of the earlier publications of the Prof. P.N. Mehra School at Panjab University, Chandigarh, or the work of Prof. T.S. Mahabale at Pune, and others. In South India only Manickam's and Dr. J. Ghatak's cytological work can be properly verified today and applied to modern pteridology.

After his Ph.D. he joined as Lecturer in Botany from 1979–1981 at the Rapinat Herbarium, St. Joseph's College, Trichy, working with the accomplished Botanist, Dr. K.M. Mathew, on the ferns of Karnataka and the whole of the Western Ghats. His extensive herbarium collection from the earlier as well as more recent work is thus mainly housed at Trichy (RHT) and the well-documented, good quality cytological and distributional voucher-specimens he published have been photographed there and when necessary, critically re-identified by CRFJ. But he was not happy at Trichy, and in 1982 he transferred to St. Xavier's College, Palayamkottai, as Lecturer in Botany. From 1982 to 2008 he was settled and worked for nearly 30 years at his beloved St. Xavier's College and continued the bulk of his research career there, also supervising many students and introducing them to the fascinating world of Pteridology, and Botany in general, in a series of major projects. His extensive later herbarium collections are housed at St Xavier's (XCH) and again nearly all the important voucher-specimens of his and his students' have been photographed there for preservation by CRFJ.

During 1984–87, funded by the Department of Science & Technology, he carried out a major project on the Biosystematics of ferns of the Western Ghats

covering an area of 18,000 sq. km., and collecting some 5000 numbers of pteridophytes. Detailed field work was done in all the mountain ranges of Tamil Nadu and Kerala between Kanyakumari and Palghat. Assisted by his accomplished student, Dr. Varaprasatham Irudayaraj (b. 1960), who carried out a spectacular number of well-documented chromosome-counts, he investigated the cytology of 110 ferns collected from the area. The cytological and taxonomic results were published in two books, Manickam and Irudayaraj's *Cytology of ferns of the Western Ghats South India* (1988) (with an addition and correction, Manickam and Irudayaraj, 1989) and the outstandingly useful and major illustrated work, Manickam and Irudayaraj's *Pteridophyte Flora of the Western Ghats - South India* (1992).

In a second project funded by European Jesuits, the Western Ghats were explored from Palghat to Coorg in Karnataka. Detailed fieldwork was carried out in the Nilgiris, Silent Valley, Wyanad and Coorg, collecting 3500 numbers. As a part of this project, five families of ferns were subjected to preliminary phytochemical analysis by his research-scholars. A third related project concentrated on re-exploring several of the higher mountains such as the Anamallays, Palnis and Tirunelveli hills (resulting in a further book, Manickam and Irudayaraj's *Pteridophyte Flora of Nilgiris, South India* (2003)).

In 1987 he crowned his research-career with the opening of a new and modern Research Laboratory at St. Xavier's, the Centre for Biodiversity and Biotechnology (CBB), affiliated to Manonmanium Sundarnar University, Tirunelveli District. He was the founder and Director of the Laboratory, which concentrated on research on Pteridophytes, Angiosperms, and also environmental education to school teachers and children. In all, he supervised 25 Ph.D. students there, who all now have good positions in various organizations. He was successfully able to raise funding grants for the Laboratories' Research-Projects amounting to more than two crore rupees (20 million Indian rupees, or c. 400,000 U.S.D.) from various International and National scientific and educational funding agencies.

Father Manickam was elected a Life Fellow of the Indian Fern Society in recognition of the high quality of his work. He published 10 botanical books and more than 180 papers (a selection of his publications is in *Indian Fern J.* 22(1-2):204-208 (2005)). Later in his life he also wrote a number of spiritually insightful religious discussions with a very practical and down to earth context designed to help young people.

Father Manickam has been honored with the naming of four fern taxa after him, *Polystichum manickamianum* Benniam., Fraser-Jenk. & Irud. (2008), *Thelypteris parasitica* (L.) Tardieu subsp. *manickirudorum* Fraser-Jenk. (2008), *Athyrium* x *manickamii* Fraser-Jenk. (2008) and *Pteris manickamii* Dom.Rajk., and three Angiosperms, *Memycelon manickamii* Murugan *et al* (2002), *Xanthophyllum manickamii* Murugan (2002) and *Eugenia manickamiana* Murugan (2002). It is much to his credit that unlike other contemporaries he himself did not descend into naming many erroneous and spurious "new species" etc. that has so damaged Indian pteridology.

Unfortunately in the last five years of his life the College wished to take over his grants and therefore sent him to stay at Madurai away from his former students at work. During this time he remained of perfectly sound mind and memory despite the injustice and disappointment of the situation. Even after his unwanted retirement Father Manickam was highly active intellectually. He had learned the Thirukural (of Tamil poetic literature) by heart and spent much time translating and expounding it. He was not only an excellent teacher but also a philosopher who would always guide young students in their chosen direction in life.

In the last year of his life, on 14th Aug. 2011, his village people celebrated a Golden Jubilee for Father Manickam's 50 years since joining the Society of Jesus (1961–2011). It was a most happy occasion, which he enthusiastically enjoyed.

Father Manickam's contribution to science, especially in Pteridology, amounts to a definitive and monumental treatment of the ferns of South India. The loss to science and Botany from his death is immense, as is the loss to humanity of his delightful personality. It is hard indeed to think of his beloved establishment now no longer filled with his jovial laughter, and his lifetime's expertise uniquely guiding his active students along the path of pteridology he trod so splendidly and dedicatedly. May his soul rest in peace.